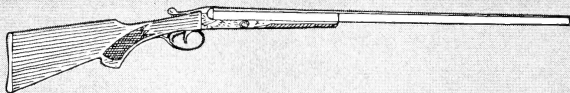
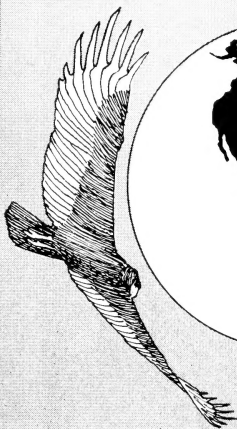
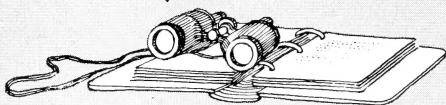


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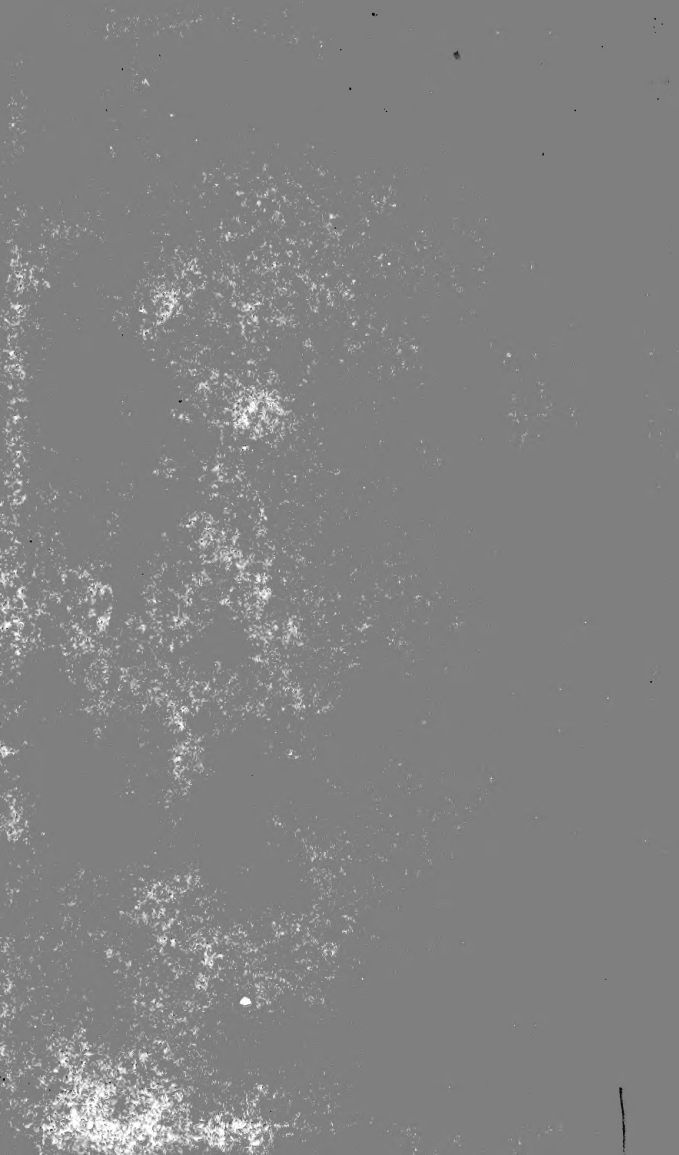
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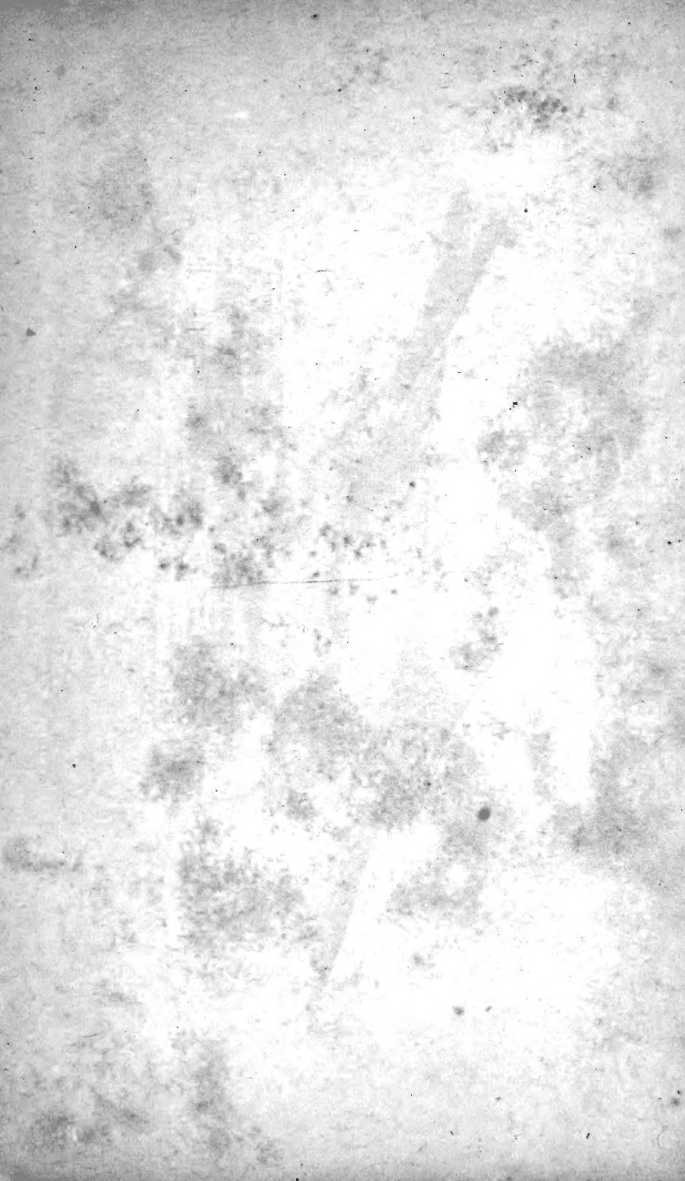


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THE LONDON PRIZE CANARY.

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THE CANARY

ITS

HISTORY, VARIETIES, MANAGEMENT
AND BREEDING.

BY

RICHARD AVIS.

THIRD EDITION.

LONDON:
GROOMBRIDGE AND SONS,
PATERNOSTER ROW.



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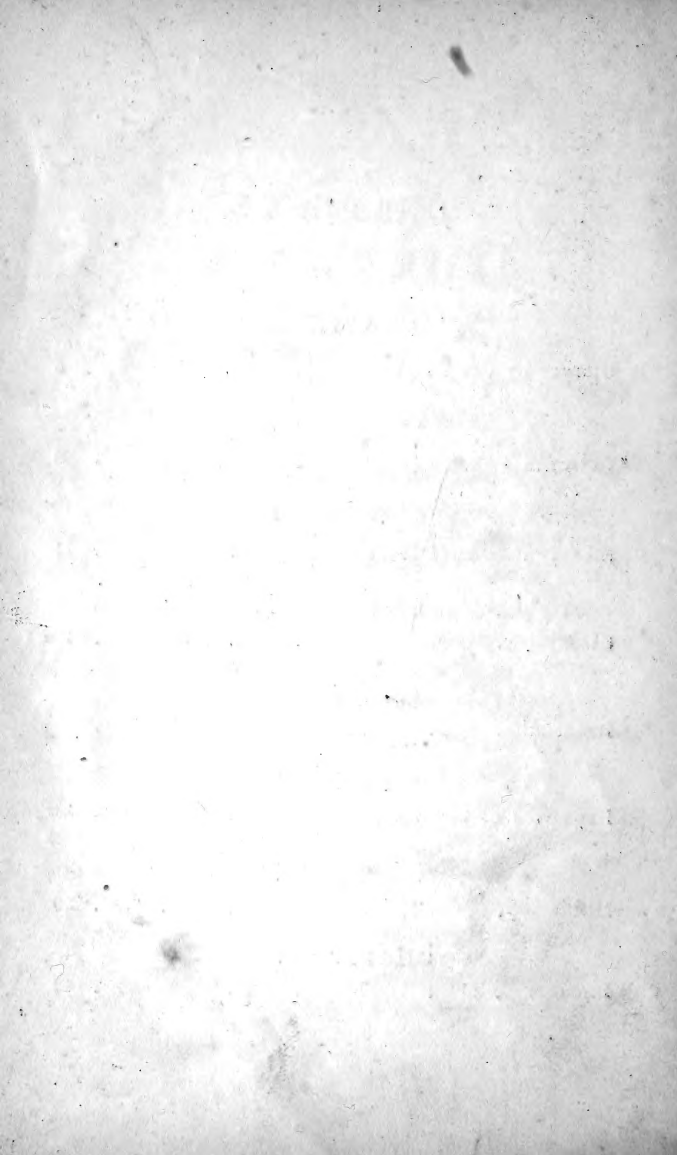
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THE CANARY.

CHAPTER I.

HISTORY OF THE CANARY.

THIS well-known songster, whose attractive qualities of form, plumage, and song, claim for it a place in every household, had its origin in the bright and pleasant climate of the Canary Islands. It was introduced into Europe in the commencement of the sixteenth century, and its arrival is thus described: * —“A vessel which, besides its merchandise, was bringing a number of these birds to Leghorn, was shipwrecked on the coast of Italy, opposite the island of Elba, where these little birds, having been set at liberty, took refuge. The climate being favorable they increased, and would certainly have become naturalised, had not the wish to possess them occasioned their being caught in such numbers, that at last they were extirpated from their new home. From this cause

* BECHSTEIN'S 'History of Cage Birds,' with coloured plates. Price 3s. 6d. Groombridge and Sons' edition.

Italy was the first European country where the canary was reared. At first their education was difficult, as the proper manner of treating them was unknown; and what tended to make them scarce was, that only the male birds were brought over—no females.

“The grey of its primitive colour, darker on the back and greener on the belly, has undergone so many changes from its being domesticated, from the climate and from the union with birds analogous to it (in Italy, with the citril finch, the serin; and in our own country with the linnet, the green finch, the siskin, and the goldfinch), that now we have canaries of all colours. If we had not sufficient proof that canaries came originally from the Fortunate Islands, we should think the citril finch, the serin, and the siskin, were the wild stock of this domesticated race. I have seen a bird whose parent birds were a siskin and serin, which perfectly resembled a variety of the canary, which is called the green. I have also seen mules from a female grey canary, in which was no trace of their true parentage. The grey, the yellow, the white, the blackish and the chesnut, are the principal varieties, and it is from their combination, and their tints, that we derive the numerous varieties that we now possess.” Those birds that have the upper part of the body of a dusky grey or linnet brown, and the under part of the yellowish green of the green-

bird, are the strongest, and most nearly resemble the primitive race. The yellow and white are the most tender.

The female can scarcely be distinguished from the male, but the male has generally deeper and brighter colours, a head rather larger and longish, a longer body, a more elegant form, neck not quite so short, and higher shanks. There is a bean-shaped feather under the beak, placed lower than the rest, and the temples and circles round the eyes are of a deeper yellow than the other parts of the body.

The length of the canary is about five inches, of which the tail measures two and a quarter ; the beak five lines long, is strong, pointed, and whitish ; the shanks eight lines in height, are of a flesh colour.



CHAPTER II.

VARIETIES OF THE CANARY.

SINCE the introduction of the first wild birds into Europe many distinct varieties have occurred ; some writers enumerating more than twenty, but as we think that it would be difficult to classify so many, allowing each a sufficient difference to constitute a distinct variety, we shall only describe those where the difference is so marked as to entitle it to be considered a distinct breed.

They may be divided into ten varieties, viz. :—The London Fancy (of which our coloured frontispiece is so faithful a portrait), with black wings and tail ; the Lizards, the Yorkshire Spangles, the Norwich Yellows, the Green, the Cinnamon, the Pale Yellow, the Pure White, the Belgian, and the Turncrest. We will proceed to describe them in the order in which we have here given them :

THE LONDON FANCY,—known as the London Fancy because it is there that it is chiefly bred—may be thus described :—*The body*—rich golden yellow or deep orange, without any approach to a pale or mealy

tinge ; *tail and wings*—black (a foul feather, either white amongst the black, or grey amongst the yellow, would disqualify it as a prize bird). These distinctive markings do not reappear after the first moulting.

LIZARDS.—So called from some fancied resemblance in the markings to the reptile of that name. *The body*—clear grey or bright orange, covered all over with regular black spots ; *crown of the head*—pure white or yellow ; *tail, wings, and feet*—a uniform dark hue, without any admixture of white ; *throat and breast*—a lighter shade than the back, approaching more nearly the colour of the head.

YORKSHIRE SPANGLE.—Named from the county in which it is chiefly bred. *The body*—a pale mealy colour ; *head*—greenish brown ; *wings*—greenish brown.

NORWICH YELLOW.—*The body, head, tail, and wings*—golden yellow.

GREEN.—*The body*—Grass green, with long dark stripes down the back ; *breast*—saffron yellow ; *wings and tail*—grass green, striped with black.

CINNAMON.—*The body and breast*—bright yellow or mealy white ; *head, wings, and tail*—cinnamon or reddish fawn.

PURE WHITE AND PALE YELLOW.—The colour of these birds must be pure white or pale yellow, untainted with dark feathers of any kind.

BELGIAN.—*The body*—Long, tapering, and slender ; *head*—square, wide, and flat ; *neck*—long, tapering, and snake-like. The chief characteristics of this breed is the high square shoulder and erect position when standing on the perch, the pinions of the wings being placed much higher up on the back than in any other variety.

TURNCRESTS.—Birds with a crest of feathers at the top of the head, hanging down over the beak and eyes. In breeding birds of this description it should be remembered that only *one* of the parent birds should be crested. If both are crested there is the probability that many of the offspring will be deficient in this appendage, if they are not positively bald.



CHAPTER III.

FOOD AND GENERAL MANAGEMENT.



THE proper food for THE CANARY is canary seed, which should be large and glassy, mixed with about one fourth part of the best rape seed ; and little else is required except green food, such as chickweed, groundsel, or watercress, which should be given fresh every day, with a plentiful supply of clean water, both for drinking and bathing purposes. The bottom of the cage should be covered with fine sharp red sand, and the perches (which should be square and firmly fixed) regularly scraped, so as to maintain perfect cleanliness.

Great variety of food is not required, and “as* it is simple and natural, it will be wholesome; and on the contrary, the more it is mixed and rare, the more injurious and productive of disease it will be. What I have found the best is summer rape seed; I mean that which is sown at the end of spring, which

* BECHSTEIN'S ‘History of Cage Birds,’ with coloured plates. Price 3s. 6d. Groombridge and Sons’ edition.

is small and brown, in distinction from the winter rape-seed, which is sown in the autumn, and which is large and black. This seed alone agrees with canaries as well as with linnets: but to give them the pleasure of variety a little bruised hemp, or canary, or poppy seed, is added to it, especially in the spring, when they are intended to breed. Indeed, a mixture of summer rape seed, oatmeal and linnet, or canary seed, may be given them as a great treat; but whatever seeds they may have, they equally require green food, as chickweed in spring, lettuce and radish leaves in summer, endive, watercress, and slices of sweet apple, in winter. As to that whimsical and complicated mixture prescribed and used by many people of rape, millet, hemp, canary seed, whole oats and oatmeal, poppy, lettuce, plaintain, potentilla, and pink seeds, maize, sugar, cake, hard biscuit, cracknels, buns, and the like, so far from being wholesome, it injures the birds in every respect. It spoils their taste, weakens their stomachs, renders them feeble, sickly, and incapable of bearing moulting, under which they most frequently die. It is true, they may be accustomed to eat of everything which comes to table, but to teach this habit is also to prepare a poison for them, which though slow is not the less sure, and brings them to a premature death; whilst every day we see bird-fanciers who are poor, who hardly know

the names of these delicacies, rear on the simplest food a considerable number of the healthiest, cleverest, and strongest canaries. We must, however, be guided in a great measure by the constitution of the birds. They should be daily supplied with fresh water, as well for drinking and bathing, in which they delight. In the moulting season a nail or bit of iron should be put into the water, in order to strengthen the stomach. Saffron and liquorice are in this case more hurtful than useful. Grains of the sand with which the bottom of the cage is strewed afford the birds a help to digestion. What has been said above refers solely to the food of full-grown birds ; the young, which cannot feed themselves, require a different diet."

Except in the breeding season the male canaries are kept alone in separate cages, which, whatever the shape, ought not to be less than eight inches in diameter and a foot in height, with two sticks placed across for the bird to perch on. The females may be allowed to range the room with one wing clipped, or, what is better, kept in large cages, where, from having plenty of exercise, their health and strength are better preserved. In the small cages, glass vases should be placed on the outside, at the extremities of the lower stick, to hold the food and water. These may be surmounted with a cap of tin, or something of the kind,

to prevent the seed from being so easily scattered. It is for this reason that the large seed drawers in an aviary are covered with iron wire-work, leaving only sufficient spaces for the heads of the birds to pass through. Cleanliness being a great preservative against most of their disorders, the bottom of the cage should be made to draw out, that it may the easier be cleaned and covered with sand. This should be done every day, or at least several times a week. These tender birds, being natives of a warm climate, and becoming more delicate instead of hardier from being kept in the house, require a temperature analogous to that of their native climate. They must be protected from the cold, and never allowed to remain in winter in a cold room, which would occasion many diseases, or even death. But in summer it is proper to place them in the open air, and they enjoy it very much. Never do they sing so gaily as on fine days, and their cages should therefore be placed at the open window, that they may have the advantage of the light and heat of the sun, which is particularly serviceable to them whilst bathing.

There is too much trouble and risk in allowing canaries to go in and out of their cages for it to be worth the trouble of teaching them this. Notwithstanding all my attention and the care which I have taken to follow exactly the prescribed rules I have

never succeeded; and the cleverest bird-fanciers have assured me that it should never be attempted but when they have young ones—and, above all, there must be no canaries in the neighbouring houses, which might entice them away. Indeed, it is no easy matter to accustom a bird to go and come. Mr. Kidd, however, in his treatise on the canary,* says, “They may be easily taught by affectionate care to come out of their cages when called for; or to sit on the finger and sing when requested.”

* ‘THE CANARY, a Cage and Chamber Bird.’ By WILLIAM KIDD. Price 6s. Groombridge and Sons, London.



CHAPTER IV.

CAGES.

THE selection of cages will always be a matter of taste; but, for all practical purposes, it should be remembered that little ornamentation or expense is necessary. The Rev. Francis Smith in his book says,*—"They may be too small, or too large, too ornamental or too elaborate in their workmanship, and in either or all of these cases they do not answer the purpose required. If a cage be too small it is cruel to the bird you desire to pet, while if it be too large, a single bird will not only appear lost in it, but in all probability it will have the effect of making him less disposed to treat you with his song. On the other hand, if a cage be too elaborate and ornamental in its design and workmanship, the effect will be to fasten the attention rather on the casket than on the jewel it is meant to enshrine. Since the first Great Exhibition in Hyde Park we have had

* 'The Canary: its Varieties, Breeding, and Management.' By the Rev. F. SMITH. With 12 full page coloured portraits of all the varieties. Price 3s. 6d. Groombridge and Sons, London.

bird-cages of every form and description. Swiss cottages, Chinese pagodas, Gothic churches, and Indian temples, with their painted domes and minarets, all doing great credit to the taste and enterprise of our workers in tin, but utterly unadapted to the purpose required. To do this satisfactorily we maintain that the cage should always be subordinate to the bird, and its main object be to set off to the greatest advantage the plumage of the latter, and just in proportion as it does this will it come up to our *beau ideal* of what a cage should be. Whenever we see a beautiful canary imprisoned in one of these gorgeously got up gim-cracks of zinc, we always feel very much what an artist in some picture exhibition, standing near his own production to hear the criticisms of the public, may be supposed to feel, as he hears some unsophisticated party exclaim, 'Oh, my! what a beautiful frame!' No, this is surely putting the cart before the horse, and therefore at once disposes of all these pretty toys, as fit and proper habitations for our pet. No one who has had a bird fit to be called a canary will ever hide him in one of these, whilst those who possess the lowest kind of the species only will hardly think them to be worthy of so expensive a domicile.

"For single birds the two cages we should recommend are the japanned bell-shaped cage, and the plain square white tinned sort. The former is light, airy

and elegant, and answers well for a single bird, who always looks well in it. It has the recommendation of being easily cleaned, and of affording the least possible screen for those pests and scourges of the canary, red-lice. The only drawback is, that its shape precludes it from being hung up against a wall, but for a stand, or to be suspended from a ceiling nothing can be better for the purpose. In this, as in all other wares, there are inferior kinds, of which I would fain put my readers on their guard, for the cheaper imitations of the real article being badly japanned and painted with the worst of paint, and therefore easily picked off, as we have experienced to our sorrow, are often the unsuspected cause of ill-health, and death of many a valued and valuable bird. Of course the only way to guard against this disaster is to go to the best makers, or the leading bird-dealers, who are sure to patronise the best articles.

“But the cage to set off a canary to the greatest advantage, and which therefore we recommend before all others, is the plain square-topped cage, made of white tin wire without any wood-work at all, except the bottom, which should be of polished ebony, or at least, if of other wood, stained black. This suits alike all birds of whatever colour they may be, but we need hardly say sets off the pale yellow or the deep orange to the very greatest advantage. It is far beyond the

common mahogany, as any one may judge for himself if he will only contrast any substance of red and yellow together, beside yellow and black. All fanciers when they wish to exhibit their birds to a purchaser or otherwise, invariably use a black cage and not a mahogany one, which speaks for itself. And yet how few such cages do you see exhibited for sale; if you wish for one, it is ten to one that you will have specially to order it, and yet its greater superiority for exhibiting a canary off to the best advantage over all the japanned pagodas and Swiss cottages that ever were made is beyond dispute, and requires only to be seen to be at once admitted.

“For the purpose of breeding of course a cage of a totally different construction is required, and the ordinary shape will answer every end. The double one, however, will probably be most convenient, its size being something like the following dimensions, viz., three feet six inches long, one foot wide, and two feet high. This will be quite large enough, divided by a wooden partition in the centre, for two pair of birds, and it will be far better in the end to have a number of these according to the extent of your breeding establishment, than to put two or more pairs together in a larger cage, as they are almost sure to fight, when the hazard of breaking their eggs, or killing the young, we need scarcely say, is very great. Under any cir-

cumstances we hold prevention to be far better than cure, and even if we had a room at our disposal for the purpose, we should prefer a number of separate cages or compartments for each pair of birds, rather than turn them into it promiscuously. We speak from our own experience in this matter, and confidently recommend a separate cage such as we have described above, to all who wish to unite the greatest amount of success with the minimum of disaster.

“When the young birds are to be weaned, or when a number of old birds, after the breeding season is over, have to be kept together, a third cage of a still different construction is required. This is an oblong wire cage of goodly size, according to the number of birds to be put into it, and sufficiently large for the young birds to fly about in, and exercise the muscles of their wings and body. This is a matter of the very greatest importance, for without exercise, and strong exercise too, young birds can never be healthy or strong. Our own cage is of the following dimensions, and one of the best for the purpose we have seen, viz. four feet long, eighteen inches wide, and twenty-two inches high. Every one may not have room enough for so large a cage, but the nearer their cage approaches these dimensions, most assuredly the better it will be for their young birds. These cannot have too much room for exercise, and on the quantity they are able

to get when first taken away from their parents, will their health and vigour greatly depend.

“Possessing cages of the several kinds we have described, you will have every requisite necessary for the exhibition, breeding, and weaning of your canaries. In any case, whether you have one or all, be sure that the wire of which they are made be not brass, for this produces verdigris which I need scarcely say, if eaten, will be fatal to your pets. Let the drinking font be the pear-shaped glass font, which is ever self-supplying, and whose neck being inside the cage will preserve your birds from the risk of being left without water. For the ordinary seed I recommend the open drawer, with a smaller one for a little hemp or other dainty. These with a tin pan for sopped bread, or egg in breeding-time will complete the fittings-up of your cages, and leave nothing to be desired.”

Mr. Kidd recommends the following as the proper dimensions for a breeding-cage:—“Length, 2 feet 6 inches; depth, 16 inches; height, 22 inches. The top and sides should be of wood, the front of strong tin wire. Three or four perches should run across the cage, and a little chamber, or rather one large chamber divided into two, should be made immediately under the top of the cage, to hold the nest-boxes.

“In the front of these compartments should be

circular holes, sufficiently large to give the birds ingress and egress to their nests. In these divisions they will build, and also rear their young.

“To enable you, when occasion requires, to get access to these nest-boxes, have square doors made in the side of the cage, opening outward. You can then quietly make your observations, and avoid disturbing your birds. In the front of the cage, there should be two large tin pans inserted, one on either side, to hold the seed; also a circular hole in the centre, to admit the birds’ heads while drinking. A receptacle of tin should be provided to hold the water, suspended by bent wires. To enable your birds to get at their food the more readily, a long, narrow perch should run immediately behind these tins, from one end of the cage to the other. Let the inside be painted thrice in oil, white.”



CHAPTER V.

BREEDING.

IN breeding the canary much loss of time and disappointment are often the result of too early pairing, and it should not be forgotten that young birds require great warmth, not only heat, but the rays of the sun. Birds hatched in cold and frosty weather are almost sure to die, and the old birds be unduly weakened by their exertions.

Breeding of canaries will be much encouraged if from the first day of pairing an addition of hard-boiled egg is made to the regular food.

Mr. Smith in his book says, on the subject of breeding, "To every breeder of this pretty songster I would say, start out with some definite object in your own mind, and then having settled what this shall be, devote all the skill and knowledge you possess to bring it about. For example, study the varieties of *form* peculiar to each race, settle in your own mind a high standard of excellence, and then select those birds alone to breed from you think are most likely to realise

it in their produce. Do the same as to *colour*, decide at the outset what this shall be, and do all you can to get it pure and distinct. Thus, whether it be pure white, pale lemon or buff, bright yellow or deep orange, grey or green, cinnamon or mottled ; in short, whether it be the Lizard, the London Fancy, the Yorkshire Spangle, or the prize Belgian, do not mix them, but keep them separate, selecting such birds only as are likely in your judgment to produce offspring still more excellent than their parents. With regard to shape, there is little or no difficulty to contend with, the rule of "like producing like" invariably holding good. With regard to colour, however, owing, I imagine, to the promiscuous breeding and crossing hitherto practised, it is nothing like so certain. Could you only obtain birds of any given colour, whose ancestors had never been crossed with those of any other for eight or ten generations previously, I have little doubt that it would be as constant and unchanging as any other quality you could name. But owing to the want of the systematic breeding we recommend, this rule can hardly be depended upon at present, or indeed any other, for all are liable to be marred by vagaries which the breeder could not possibly anticipate. Hence all the discrepancies and conflicting advice given by various writers upon the subject, such being true probably as regards his own experience, but scarcely

to be relied on as an unalterable rule for all. Thus one writer says, "If you wish very high-coloured birds, breed jonque and jonque," that is bright yellow with bright yellow, whilst another as confidently asserts that such a mode of proceeding will never do, but that "a fine full-coloured bird is likely to be obtained from the union of a clear-bred, jonque cock, with a large, perfect, mealy hen." One party asserts "that the union of opposites is productive of the most harmonious results," the other that their experience teaches the very contrary. For my own part I believe much depends upon the particular circumstances of each case. Wherever we can obtain pure bred birds from a pure stock of several generations, I have no doubt about the soundness and wisdom of the principle of "like producing like." But where birds have been bred with others of different colour, or where it is desirable to infuse a harder texture into the soft and flossy silkiness of feather usually found in very high-coloured birds, a cross with a close-feathered mealy hen may be more desirable. As an instance of the rule of contraries it is universally admitted that two turncrested birds may produce bald-pated offspring. Mr. Adams, in his 'Cage and Singing Birds,' says good Lizards are obtained by matching a strongly marked grey cock with a dark-splashed hen, and if you put together a strong grey or green coloured cock with a clear mealy

hen, you will most likely have cinnamon birds. If you pair for several seasons the lightest mealies procurable you will have white and flaxen coloured birds, and so you may go on producing varieties innumerable. For our own part, however, we recommend the system of "like producing like," keeping them clear and distinct, rather than crossing and recrossing as above described ; but above all the breeding of self-coloured birds rather than of irregularly or fancifully marked birds we now too often see.

A male of from two to five years of age should be chosen for pairing ; for experience has taught, that if a young male is placed among older females, they will produce more males than females. A bird is known to be old by the blackish and rough scales of his feet, and by his long and strong claws.

Good males are valuable and scarce. Some are dull and melancholy, always sad, and seldom singing ; indifferent to their mates, which are equally so to them : others are so passionate, that they beat or even kill their mates and their young ; others are too ardent, and pursue their mates while they are sitting, tear the nest, destroy the eggs, or excite the females so much that they voluntarily abandon them.

The females have also their defects. Some, too ardent, only lay without sitting ; others neglect to feed their young, beat them, and pick out their feathers, so

that the wretched little creatures die miserably ; to others, laying is so painful that they are too much fatigued to sit, or they lay each egg only after a long interval. Quacks (for we find them on this subject as on others) pretend to have specifics for the cure of these defects ; but their pretended remedies are mere deceptions, and the use of them causes much trouble. The best plan is to remove the vicious birds, and to retain only those which have none of the above-named bad qualities.

To obtain the most brilliant colours, those birds which have them clear, and whose spots are distinct and regular, are paired together. This, of course, can only be done in separate cages. In aviaries, where the birds pair by choice, the offspring are generally mixed and blotted. A greenish or brownish bird, placed with a bright yellow one, often produces dim white, or other admired colours. It is better never to place together two crested birds, because the offspring is apt to have a part of the head bald or otherwise disfigured.

The best time for pairing canaries is the middle of April. Either one male, and one or two females, are placed in a large cage, or many of both sexes are united in a room or aviary, having the advantage of a south aspect. Nests made of turned wood, or osiers, are given them, as straw ones are too easily torn. It is a

good plan to place in the room or aviary slips of pine, which being cut in February do not lose their leaves. If a little enclosure of wire-gauze can be fixed over the window, where the birds can enjoy the fresh air, nothing will more effectually contribute to render the young healthy and robust.

Birds which are to be paired for the first time, should be previously placed in the same cage for seven or eight days, in order to become acquainted and accustomed to live together. If two females are to be caged with one male, it is especially necessary that they should be together long enough to leave off quarrelling, and the pairing cage should be divided into two equal parts, communicating by a sliding door. This being done, a lively male and one of the females should be placed in the first division; as soon as she has laid, the male should be moved into the other division, the door of separation being shut; but as soon as the other has also laid, the door may be left open: the male will then visit the females alternately, and they will not trouble themselves about each other; but without these precautions jealousy would incline them to fight, and destroy each other's eggs.

When it is intended to place a great many females, double or treble the number of males, in a room or aviary, the latter should always be first paired with a single female, which will ever after remain the

favourite; and it will only be when she is about to sit that he will pair with the others, and this is all the notice he will take of them, for afterwards he will only notice their young. It is from these mothers, however, that the most and the best birds are generally procured.

If the floor of the room or aviary is well covered with moss, little else need be added for making the nests, otherwise they should be supplied with the hair of cows and deer, hogs' bristles, fine hay, lint, wool cut two or three inches long, paper shavings, and the like. That which is coarsest serves for the outside, and the softest and finest for the inside. If they have shrubs, traces of the natural instinct of the Canary are soon observed in the nests which they construct without the help of the turner or basket weaver; but they are of an inelegant form, and the outside is not very carefully finished. The females alone, as is usual among birds, are the builders, the males only choosing the situation and bringing the materials. Seven or eight days are generally reckoned from the first pairing to the laying of the first egg; the other eggs, whose number varies, without exceeding six, are laid successively every following day, and often at the same hour. The laying ended, pairing continues during the first days of incubation.

If the pairs agree, they must be left entirely to themselves, without endeavouring to use art to help nature, as many do. Some breeders take away the first egg and substitute an ivory one, which is repeated with the others to the last, preserving them in the mean time in a box filled with fine dry sand; they are afterwards restored all together to the nest to be hatched. This is a bad practice; in the first place it is contrary to nature, causes the mother a greater loss of heat, and burdens her at once with five or six little ones, which, coming all at once, disturbs rather than pleases her. Very intelligent bird fanciers have assured me that, by not removing the eggs from the nest, and leaving them to be hatched in succession, they have always succeeded better than when substituting ivory eggs.

The females lay three or four times a year, from April till September; there are some even so prolific that moulting does not stop them. The eggs, of a sea-green colour, are at one end more or less spotted or marked with maroon or violet. The period of incubation is fourteen days.

If, owing to the weakness of the male or female, it is suspected that some of the eggs are barren, they should on the eighth day be examined by holding them lightly between the fingers in the sunshine or before a candle; the good ones will be already filled

with blood-vessels, while the bad will continue clear, or even be already addled: these must be thrown away. It is rare for the male to sit in his turn during some hours of the day, the female seldom allowing it, for as soon as she has eaten she flies back to the nest. If the male gives up his place readily, so much the better; if not, she drives him away by force and by pecking him. She appears to know his want of skill in this employment.

The near discharge of a gun, a door slammed with violence, and other similar noises, will often kill the young in the shell; but their death happens generally through the fault of a bad sitter.

As soon as the young are hatched, a small jar is placed beside the usual feeding trough, which contains a quarter of a hard egg minced very fine, white and yellow together, with a bit of white bread steeped in water, and afterwards well pressed; another jar should contain rape seed which has been boiled, and then washed in fresh water, to remove all its acrimony. Some persons, instead of white bread, use biscuit, but this is unnecessary; what, on the contrary, is very essential, is to take care that this food does not turn sour, for it would then infallibly destroy the young nurslings. This food I find by experience to be the best.

Now is the time when the male assumes his impor-

tant duties of nursing-father. These he fulfils indeed almost alone, in order to give his mate time to rest before a new sitting. When it is necessary to bring up the young by hand, a bit of white bread, or some biscuit, should be pounded very fine, and this powder should be mixed with well-bruised rape seed. This composition serves, with a little yolk of egg and water, to make a paste, which is given to the young birds on a quill cut like a spoon; each nursling requires for a meal four beakfuls, well piled upon the quill, and these meals must not be fewer than ten or twelve a day.

The young should remain warmly covered by the mother as long as they continue unfledged; that is to say, generally for twelve days: on the thirteenth day they begin to eat alone. In four weeks they may be placed in other cages of a sufficient size; but they must still for some weeks be fed with the above-mentioned paste, conjointly with the food of full-grown birds; for the sudden privation of this nourishment often occasions death, especially when moulting.

Experience proves that generally those canaries which are hatched in a large garden aviary, where they enjoy fresh air, and considerable space for the exercise of their wings, are more vigorous, more healthy, and more robust than those which

are bred in rooms, and it is easy to understand the reason.

The foregoing instructions are all sufficient to guide any one in the breeding of Canaries, bearing in mind that cleanliness, quietude, constant attendance to food and water, plenty of air, and absence of too much curiosity, are the essential necessities for success.



CHAPTER VI.

EDUCATION OF THE YOUNG.

THE singing of the canary is strong and varied, continuing uninterrupted, except at the time of moulting, during the year, and even this exception is not general. Some birds also sing during the night.

The female, particularly in spring, sings also, but only a few unconnected and unmusical sounds. Old ones which have done breeding often sing in this way at all seasons.

Sometimes, even before they leave the nest, the young males begin to warble; and as they are wonderfully quick at imitating all sounds, it is important to place them, as soon as they can feed themselves, in separate cages, and within hearing of a first-rate song-bird, whose notes they will immediately acquire. Great care should be taken to prevent their listening to any bad singing or harsh sounds, as they are adept learners, and will readily introduce such defects into their song.

Should it be desirable to instruct them to imitate

the harmony of musical instruments, they should be separated from all other birds, and their cages should at first be covered with a piece of linen, and afterwards with a darker cover. The air which is to be taught should be performed five or six times a day, especially in the evening and morning, either by whistling, or on a flageolet, or bird-organ. He will acquire it more or less readily in from two to six months, according to his abilities and memory. If his separation from the other birds is delayed beyond the fourteenth day he will retain some part of his father's song, which he will always intermingle with his acquired air, and consequently never perform it perfectly. The opinion of some, that the greyish canaries have more facility in learning than the yellow or the white, is unfounded, their only advantage over those of a different hue being that they are generally more robust and vigorous.

The Germans, who care little for either the form or colour of their birds, pay great attention to their song: and we advise all those who wish to fully develop the good qualities of young canaries to place them under the tuition of a German bird.

Mr. Smith says:—"In respect of song, the German birds are as much superior to those of England, or, indeed, any country I am acquainted with, as the high-bred Belgian is in form to the little short stumpy

canary we see in every market. The reason of this is very simple. On the one hand, the Germans pay great attention, and bestow much pains on the education of these little songsters; whereas, on the other, the Englishman leaves all to chance, never troubling his head about the matter. With us a bird is left entirely to its own resources, scarcely ever hearing any other note than that of its parent, from one generation to another, so that we need scarcely be surprised to find the same piercing loud and harsh song handed down from father to son without the least change or improvement. Far different is it, however, in Germany, where the breeding of canaries is quite a trade, and which, therefore, to make it profitable, requires and receives as much attention and thought as any other. There the greatest pains are taken to teach the young birds an artificial song; and such has been their success that it has enhanced their value some twenty per cent. Indeed, were it not that they have no rivals in the matter of song, they would never be able to sell the little ordinary variety, which alone they breed, in England at all. As it is, thousands are now annually imported into our country, and find a ready sale at prices varying from ten to five and twenty shillings each, which but for their song would not make more than eighteen pence at the most."

Those which introduce into their melody some passages of the nightingale's song are the most esteemed of all canaries; they are called Tyrolean canaries, because they are considered natives of the Tyrol, where they breed many of these birds. The second are the English canaries, which imitate the song of the woodlark. But in Thuringia the preference is generally given to those which, instead of a succession of noisy bursts, know how, with a silvery sonorous voice, to descend regularly through all the tones of the octave, introducing from time to time the sound of a trumpet. There are some males which, especially in the pairing season, sing with so much strength and ardour, that they burst the delicate vessels of the lungs, and die suddenly.

I shall conclude this chapter by pointing out the best rules for obtaining and preserving good singers. The most essential is to choose from among the young that which promises a fine tone, and to seclude it from all other birds, that it may learn and remember nothing bad. The same precaution is necessary during the first and second moulting; for being likely to relearn (if I may say so) its song, it would introduce into it with equal ease foreign parts. It must be observed whether the bird likes to sing alone, or in company with others, for there are some which appear to have such whims, liking to hear only

themselves, and which pout for whole years if they are not humoured on this point. Others sing faintly, and display their powers only when they can try their strength against a rival. It is very important to distribute regularly to singing birds the simple allowance of fresh food which is intended for the day. By this means they will sing every day equally, because they will eat uniformly, and not pick the best one day and be obliged to put up with the refuse the next.



CHAPTER VII.

MULES.

CANARIES pair not only among themselves in our aviaries and cages ; they also form connections foreign to their species, and, provided the analogy is not too remote, produce fruitful mules.

Serins, citril finches, siskins, goldfinches, or linnets, are the species which succeed best. To succeed, however, it is necessary that the birds should have been brought up from the nest.

The custom is to give an old male one of the above-named species to a female canary, the principal reason being that an old female of one of those species, though she would not object to the union, could never be induced to lay in an artificial nest, like a female canary. The offspring of these mixtures combine the colours of the father and mother, learn well enough if they descend from a linnet or goldfinch, but sing badly if they come from a siskin or lesser redpole.

They are easily brought up with the paste mentioned for canaries. It is asserted that the mules or

serins, citril finches, and goldfinches, are fruitful. It is remarked, however, that their first eggs are very small, and the young hatched from them very weak; but the next year the eggs become larger, and the young stronger and more robust.

MULES BETWEEN A CANARY AND A GOLDFINCH present in their plumage an agreeable mixture of the colours of their parents. The most beautiful which I have seen was greyish ash-colour in the middle of its crest, and silvery white on the rest of its head and nape; a broad orange border surrounded the beak, and the neck was adorned with a white collar; the back was a dusky grey, with black streaks; the rump white, the under part of the body of snowy whiteness; the under tail-coverts, the wings, and first quill-feathers white, but the others, as well as the coverts, black, edged with yellow; the middle of the wing was also adorned with a beautiful golden yellow spot; the white tail had a black spot on the sides, the white beak was tipped with black, the feet were white. The mother of this beautiful bird was white, with a greenish grey crest. In general, one may be sure of fine birds when yellow or white females are paired with goldfinches.

MULES BETWEEN THE CANARY AND THE SISKIN.—
If the mother be a green canary, the mules will

resemble a female siskin; but if she is white or yellow their colours are lighter, yet without differing greatly from those of the siskin, which they always resemble in shape.

MULES BETWEEN A CANARY AND A GREEN-BIRD OR A CITRAL FINCH.—If the hen canary is neither white nor yellow, the mules differ little from the common grey or green canary, except in being more slender, and having the beak shorter and thicker.

MULES BETWEEN A CANARY AND A LINNET will be speckled if the mother is white or yellow; but if she is grey they will be like her, except that the tail will be longer.

THE MONGREL BULLFINCH.—It is the offspring of a female bullfinch reared in the house from the nest, and of a male canary. Its shape and colour partake of those of the parent birds; its note is very agreeable, and softer than that of the canary; but it is very scarce. This union rarely succeeds; but when tried, a very ardent and spirited canary should be chosen.



CHAPTER VIII.

DISEASES.

CANARIES, provided they be carefully attended to, have few ailments, and the period at which they are most liable to disease is during moulting, which usually occurs during the months of July and August, and is a time when particular care and attention should be bestowed. Their food should be changed, but without giving any heating delicacies, which are very injurious.

It has been observed that birds always moult at the time when their food is most abundant; the forest birds may then be seen approaching fields and cultivated places, where, having plenty of insects and seeds, they cannot suffer from want; indeed, the loss of their feathers prevents their taking long flights, and the reproduction of them occasions a loss of flesh which must be repaired. An abundance of food is therefore necessary, and, following this rule, during moulting some additional food must be given, a little hemp-seed, white bread soaked in milk, and lettuce, or endive. The birds should also be kept warm.

Nothing has succeeded better than this regimen : all the birds which I have seen treated in this manner have passed their moulting season in good health.

The Rupture, or Hernia : this is very common among young birds, and is a kind of plethora, which produces inflammation in the bowels. The symptoms of this disease are, thinness, the skin of the belly transparent and distended, covered with little red veins surcharged with blood, the bowels are black and knotted, and descend to the extremity of the body ; there are no feathers on the diseased part ; the invalid does not eat, and dies in a few days. Too nutritious, or too much food, being the cause of the disease, the only remedy is a very severe regimen, and even then it can be cured only in its first stages. The diseased birds must be immediately removed, and fed with nothing but lettuce or rape seed, in very small quantities. A bit of iron should also be put in the water, and everything be done to invigorate and purify them. It is very rare for young birds which are brought up by their parents to suffer from this disease, as they never over feed them. In bringing up by hand this moderation should be imitated, and they should neither be over fed nor pampered.

The yellow gall in the head and eyes, arises from over heat ; a cooling diet is therefore the only remedy. If the tumour has grown to the size of a grain of

hemp seed, it must be cut off, and the wound be anointed with a little fresh butter.

Sweating.—There are some females which, during the time of incubation, or while they are on their young, are subject to profuse perspiration; the feathers of the belly are in consequence so wet as to destroy the brood: as soon as this indisposition is perceived the invalid must be washed with salt water, and after a few minutes be plunged into pure water, to wash off the salt, and be dried in the sun as quickly as possible. This operation is to be repeated once or twice a day till recovery; but as relapses are frequent, it is better to separate the female, and not allow her to sit.

Asthma, or *hard breathing* which arises from an oppressed stomach, generally yields to plantain and rape seeds moistened with water as the sole food.

Sneezing, produced by an obstruction in the nostrils, is removed by passing a very small quill up them to clear them.

Loss of voice.—It sometimes happens that after moulting a male suffers the loss of its voice; it must then be fed with the same paste as is prepared for young birds, adding some lettuce seed, and, according to some bird-fanciers, a bit of bacon should be hung to the cage for it to peck.

Constipation.—The remedy for this is plenty of green

food, as lettuce leaves, watercress, &c., not forgetting bread and milk, to which add a little coarse brown sugar.

Epilepsy, which is common among many kinds of birds, may be produced in canaries by particular causes, as great delicacy and timidity. We should therefore avoid alarming them, either by catching them too suddenly or violently, or by tormenting them in any way.

Overgrown claws and beak.—When the claws or beak want paring, sharp scissors must be used, and care taken to avoid drawing blood, lest the bird should be maimed. They often injure themselves when their claws are too long, and get hooked in the wires of the cage, and continue thus hanging. The females, in the same way, get entangled in their nests.

Lice.—The parasite insects by which these little prisoners are often tormented, are generally produced by slovenliness. Besides frequent bathing, the cages must be cleaned with much care and vigilance, and have plenty of very dry sand strewed over the bottom. Wooden cages should be well washed with lime and water. These lice, like bugs, retire during the day to cracks and crevices, which accounts for old wooden cages being often infested. To get rid of them, hollow sticks or stalks of rushes are used, which must be examined and changed every day. A more effectual

plan is to dissolve a pennyworth of white precipitate powder in half a teacupful of warm water, and with a small brush dress the bird well all over, taking care that the mixture does not enter its mouth or eyes. Then wash the whole off with soap and warm water, wrap the bird in flannel, and place it in a cage before a fire until it is thoroughly dry. This method requires great care, as the precipitate is a deadly poison.

Diarrhœa.—This disease should be attacked at the commencement before the inflammation it causes becomes violent. Boiled bread and milk, a great deal of lettuce, or any other similar green refreshing food, in general completely cures.

Egg-bound.—Give some coarse brown sugar and drop two drops of sweet oil into the vent.

Pairing Fever.—Birds are usually attacked with this complaint in May, a time when the inclination to pair is greatest. They cease to sing, become sorrowful and thin, ruffle their feathers, and die. This fever generally first seizes those which are confined in cages: it appears to arise from their way of life, which is too uniform and wearying. I cured several by merely placing them in the window, where they are soon so much refreshed that they forget their grief, their desire for liberty or for pairing, and resume their liveliness and song.

I have observed that a single female in the room is

sufficient to cause this disease to all the males of the same family, though of different species. Removing the female will cure them directly. The males and females at this season must be separated, so that they cannot see or hear one another. This perhaps is the reason that a male, when put to the window, is soon cured.

Pip.—This is a catarrh or cold by which the nostrils are stopped up, and the membrane covering the tongue is hardened by inflammation. A mixture of fresh butter, pepper, and garlic, generally cures this catarrh. It is a good thing also for the birds to drink the pectoral infusion of speedwell, and the nostrils may be opened by passing up a small feather. The ruffling of the head, the beak often open and yellow at its base, and the tongue dry, are the most decisive indications of this disease.

Diseases of the feet.—The principal cause of bad feet is want of bathing, and the knowledge of the cause of the complaint suggests the remedy. They must be frequently cleaned, taking care to remove the skin; the thick loose scales ought also to be taken off, but with all possible precaution.

The gout occasions the feet to swell; they are also so scaly and painful that the poor little bird cannot support itself without resting on the points of its wings. Dr. Handel prescribes a warm fomentation

with a decoction of soapwort. If a foot should be bruised or broken, he advises that the diseased bird should be shut up in a very small cage, the bottom of which is very smooth and even, without any perches, or anything which would tempt him to hop, and put in a very quiet and solitary place, out of the way of anything which might produce agitation. In this manner the bird will cure itself in a little time, without any bandage or plaster of any kind.

Atrophy.—This is caused by giving unnatural food to the bird, which destroys the digestive power of its stomach. In this case it disgorges, ruffles its feathers, and does not arrange them, and becomes thin very fast. The best thing is to make it swallow a common spider, which purges it, and put a rusty nail into its water, which strengthens the intestines, giving it at the same time its proper and natural food. Green food, such as lettuce, endive, chickweed, and particularly water-cresses, is the safest remedy. A very great appetite is a sign of this disease. A siskin, that was dying of atrophy, had nothing but water-cresses the three days following, and on the fourth he sung.

It is rare for canaries which are kept for breeding to live longer than from seven to ten years; while others, if well used, may be preserved for eighteen or twenty years.

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